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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/385,584	08/27/99	BALL	M 381705-(97-1

MMC2/0314

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EXAMINER
ABRAHAM, F

ART UNIT	PAPER NUMBER
2826	

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/385,584

Applicant(s)
Ball et al

Examiner
Fetsum Abraham

Group Art Unit
2826



☒ Responsive to communication(s) filed on Nov 27, 1900

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 33-37 and 41-49 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 33-37 and 41-49 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

[Signature]
FETSUM ABRAHAM
PRIMARY EXAMINER

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2826

Claims rejection

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-37,41-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwiebert et al (PN: 5,672,542)

The reference discloses a polymeric solder mask (544) of uniform thickness (see figure 5) with multiple apertures (330) located to correspondingly to a contact pad location on a substrate upon which the pre-formed mask is to be deposited on or adhered (see abstract) to the substrate. Although the prior art calls the contact regions on the substrate as wettable regions on the substrate, it is clear that the expression indicated contact regions on the substrate.

As for claims 34,44; the structure has alignment holes on the mask and the substrate to align the apertures in both elements, clearly indicating that the peripheral regions of the contact pad are not involved.

As for claims 35,45, the height of the apertures dictate terms as to the height of the conductive structures formed through the holes.

As for claims 37,47,55 the material characteristic claimed is possessed by the structure since it uses similar polymer material as the mask .

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As for claims 51,53 most feedthrough contacts are made to be structures beyond the upper surface of the intermediate dielectric material in order to have a reasonable are of contact Although conductors are sometimes made to conform to the dielectric upper surface as shown by (PN: 5,880,017) to conserve material and processing time. In both cases, the choice is design oriented.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

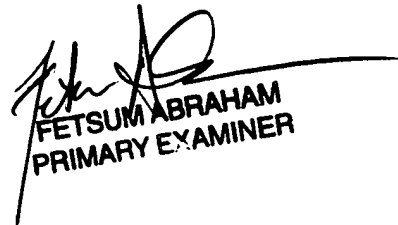
Refer PN: 5,880,017.

Any inquiry concerning this communication should be directed to Fetsum Abraham at telephone number (703) 305,3793, or by E-mail at fetsum.abraham@uspto.gov.

Any inquiry of a general nature or relating to the status of this application should be directed to the *SPE of AU:2826* at (703)308-6601, or the *Group receptionist* at (703) 308-0956.

Fetsum Abraham

3/7/01


FETSUM ABRAHAM
PRIMARY EXAMINER